

C6t *E3* *cont*
wherein the module include exterior walls, interior walls, fittings, interior finishing, roof covering, and windows.

REMARKS

Review and reconsideration of the Office Action of July 12, 2002, is respectfully requested in view of the above amendment and following remarks.

Applicant is pleased to see that the Examiner withdrew his previous rejections.

Claims have been amended to overcome all the formalities rejections.

Claim 17 has been canceled.

Claims 4 and 18 have been re-written in independent form.

Claim 20 has been amended by adding the limitation that the ceiling frame, the floor frame, and the at least one pair of pillars form a module, and the module includes exterior walls, interior walls, fittings, interior finishing, roof covering, and windows. Support for the claim amendment can be found on page 2, first and last paragraphs of the specification.

Care has been taken to ensure that no new matter is added to the claims.

After reviewing the reference, Applicant notes that compared with amended Claim 20, the reference fails to teach **that the module includes exterior walls, interior walls, fittings, interior finishing, roof covering, and windows (finished module).**

Applicant notes that the Anderson reference is directed to prefabricated building frameworks, and nowhere in the reference is the idea of providing a complete finished module. ①

*Module not claimed
claim directed to a
prefab building or house
clearly the structure or
house structure at
its design is a building.*

The present invention concerns three-dimensional elements (modules) of a building, which are prefabricated in a factory and mounted at the building site in order to form an entire house.

The modules are fully equipped in the factory, walls are finished, electrical and sanitary equipment are installed, and the floor covering is laid, thus the house is ready for occupation.

The elements of the present application are pre-fabricated in a factory in such a way that they only need to be superposed and interconnected at the building site.

Office Action

Turning now to the Office Action in greater detail, the paragraphing of the Examiner is adopted.

Paragraphs 1 -2 (DRAWINGS)

The Examiner objects to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference character "2" has been used to designate both a "Z-shaped section" and a "ceiling frame." A proposed drawing correction, or corrected drawings, are required in reply to the Office Action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "2" and "6" have both been used to designate a "ceiling frame." A proposed drawing correction or corrected drawings are required in reply to the Office Action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

sys made by modular steel frame construction method
method of making
✓ further does not say a 3-D frame
prefer for has a modular "steel frame in that it is made of
clamps (4)
pillar section (21, 25)
transverse (18, 20)
beams
pins (18, 20)
gussets (36)

In response, Applicant has amended the specification to indicate that ceiling frame corresponds to reference number 6.

Accordingly, withdrawal of the rejections is respectfully requested.

Paragraph 3 (SPECIFICATION)

The Examiner objects to the specification as failing to provide proper antecedent basis for the claimed subject matter.

Correction of the following is required: There is no support in the specification for a "transverse bearer" in the claims.

In response, Applicant has amended the specification.

Accordingly, withdrawal of the rejections is respectfully requested.

Paragraphs 4 - 17 (Formalities)

The Examiner rejects Claims 2-14, 16-19, and 20 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Examiner indicated that the claims are directed to prefabricated buildings made by a modular steel frame construction method; however, there are no method steps present in the claim language. Therefore, until further clarification, the claims have been examined as an apparatus claim.

In response, Applicant has amended the claims.

The Examiner indicated that Claim 3 recites the limitation "the incurved part" in line 4. There is insufficient antecedent basis for this limitation in the claim.

In response, Applicant has amended the claims.

The Examiner indicated that in Claim 4, it is not clear what the term "it" is referring to (i.e. the flanges or the floor layer). Clarification is required.

In response, Applicant has amended the claims.

The Examiner indicated that Claim 7 recites the limitation "the pair" in line 3. There is insufficient antecedent basis for this limitation in the claim.

In response, Applicant would like to point out to the Examiner that Claim 20 recites the limitation "at least one pair pillar," thus there is antecedent basis for this limitation on Claim 7.

The Examiner indicated that in Claim 8, it is not clear what the "two modules" are referring to. (i.e. does the Applicant mean the two pillars?). Clarification is required.

In response, Applicant has amended the claims.

The Examiner indicated that in Claim 13, it is not clear what "its" is referring to. (i.e. The longitudinal direction or the ceiling frame, what?). Clarification is requested.

In response, Applicant has amended the claims.

The Examiner indicated that in regard to Claim 14, it is not clear what is meant by the term "generates a twinned beam." Clarification is required.

In response, Applicant has amended the claims.

The Examiner indicated that Claim 16 recites the limitation "the cantilever span" in line 5. There is insufficient antecedent basis for this limitation in the claim.

In response, Applicant has amended the claims.

The Examiner indicated that in Claim 17, it is not clear what is meant by the phrase "the transverse bearer is practicable." Clarification is required.

The Examiner indicated that Claim 17 recites the limitation "the roof" in line 3. There is insufficient antecedent basis for this limitation in the claim.

In response, Applicant has canceled the claim.

The Examiner indicated that in Claim 18, it is not clear where or how the modules are "rabbeted" with respect to the building. Clarification is required.

In response, Applicant has amended the claims.

The Examiner indicated that in Claim 19, the phrase "can be" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

In response, Applicant has amended the claims.

Accordingly, withdrawal of the rejections is respectfully requested.

Paragraphs 18-19 (Anticipation)

The Examiner rejects Claims 6, 8, 9-11, 16, 17, 19, and 20 under 35 U.S.C. 102(b) as being anticipated by US Patent #4,346,540 to ANDERSON.

The position of the Examiner can be found on page 4-6 of the Office Action.

Applicant respectfully traverses.

For a reference to anticipate, it must disclose all the limitations of the claims.

Applicant reviewed the reference and notes that compared with amended Claim 20, the reference fails to teach **that the module includes exterior walls, interior walls, fittings, interior finishing, roof covering, and windows (finished module).**

Applicant notes that the Anderson reference is directed to prefabricated building frameworks, **and nowhere in the reference is the idea of providing a complete finished module.**

2
Need to
show a
finished
module
incl. all
of these
in a
drawg.
not shown.

The present invention concerns three-dimensional elements (modules) of a building, which are prefabricated in a factory and mounted at the building site in order to form an entire house.

The modules are fully equipped in the factory, walls are finished, electrical and sanitary equipment are installed, and the floor covering is laid, thus the house is ready for occupation.

The present invention differs substantially from the cited reference as far as the basic conception and the interconnection of the modules.

The present invention requires a sturdy steel construction, and the cited reference requires light construction composed of aluminum.

The elements of the present application are pre-fabricated in a factory in such a way that they only need to be superposed and interconnected at the building site.

Thus, the reference does not anticipate present Claim 20.

U.S. Patent Application No.: 09/529,374
AMENDMENT B

ATTORNEY DOCKET: 3933.002

Accordingly, withdrawal of the rejections is respectfully requested.

Paragraphs 20 and 21 (Obviousness)

The Examiner rejects Claims 2, 3, 5, 7, 12, 13, and 14 under 35 U.S.C. 103(a) as being obvious over US Patent #4,346,540 to ANDERSON.

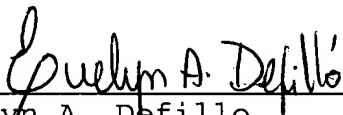
The position of the Examiner can be found on pages 6-8 of the Office Action.

Applicant respectfully traverses for the same reasons set forth in paragraphs 18-19.

Accordingly, withdrawal of the rejections is respectfully requested.

Favorable consideration and early issuance of the Notice of Allowance are respectfully requested. Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

Respectfully submitted,



Evelyn A. Defillo
Registration No. 45,630

PENDORF & CUTLIFF
P.O. Box 20445
Tampa, FL 33622-0445
(813) 886-6085

Date: **January 13, 2003**

U.S. Patent Application No.: 09/529,374
AMENDMENT B

ATTORNEY DOCKET: 3933.002

CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE

I hereby certify that the foregoing AMENDMENT B and Petition for Three Months' Extension of time for U.S. Application No. 09/529,374 filed April 12, 2000, was deposited in first class U.S. mail, postage prepaid, addressed: Attn: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on **January 13, 2003**.

The Commissioner is hereby authorized to charge any additional fees, which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.



Evelyn A. DeFillis

VERSION WITH MARKINGS TO SHOW CHANGES MADE HEREBY ATTACHED

The Examiner is requested to accept the marked-up version as it is based on the previous version, which when modified as below, produces the clean version submitted with the current amendment.

IN THE SPECIFICATION

On page 4, lines 4-6, please amend the paragraph as follows:

The floor frame (1) and the ceiling frame [(2)] (6) consist of a standard steel section C 160, St 37 or St 52, beveled and welded.

On page 4, lines 33-35 and page 5, lines 1-2, please amend the paragraph as follows:

The twinned pillars (4) for their part are welded to the floor frame (1) and the ceiling frame [(2)] (6) with the help of junction gussets absorbing and transmitting the shearing force of the building. The number of twinned pillars required is determined by the statics.

On page 5, lines 25-28, please amend the paragraph as follows:

Perpendicular to the longitudinal direction of the ceiling frame, several C 60 or C 80 transverse bearer [sections] (7) are welded inside the frame, the distance between them depending upon static requirements; they support the substructure of the suspended ceiling or the roof.

IN THE CLAIMS

Please cancel Claim 17 and amend the claims as follows:

Repeat-
2. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method according to] claim 20, wherein the floor frame comprises a standardized steel section C, 160, St 37 or St 52 and at least one other possible section, wherein the section is beveled and welded. 1129+

Repeat
3. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the flanges are welded on the inside of the floor frame in a well-defined axial distance in order to fill [the] an incurved part of the flange with concrete without reinforcing the latter.

4. (Once Amended) Prefabricated buildings or houses made by a modular steel frame construction method, the prefabricated buildings or houses comprising:

a) a ceiling frame,

b) a floor frame;

c) Z-shaped sections welded inside the floor frame; wherein the Z-shaped sections form flanges; and

d) at least one pair pillar, wherein the pillar comprises a first section and a second section, wherein the first section is connected to the floor frame and the second section is connected to the ceiling frame;

wherein the sections are interconnected by the use of a transverse bearer and pins

[Prefabricated buildings or houses according to a modular steel frame construction method as claimed in] claim 20,] wherein the floor layer consists of concrete having a "d" of at least 100 mm, and undermost of an insulating layer of pressed rockwool or a similar insulation material having a "d" of at least 60 mm, wherein the floor layer is mounted between the flanges and [that it] the floor layer is covered, without being reinforced, with B 25 or a concrete of superior proficiency grade.

Repeat.

5. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the sections of the pillar consists of MSH sections 60/60/5, St 37 or St 52 and at least one other conceivable sections and that they are interconnected by welded steel bridges 80/80/10 or other variants in dependence of the chosen section, and in an axial distance from each other conforming to the statics specifications. *what?*

1125

6. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the sections are connected to the floor frame and the ceiling frame through junction gussets in conformity with statics specifications.

Repeat.

7. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the number of the pair of pillars is determined by statics requirements.

Repeat

112A 8. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the pins consist of solid turned bars of St 37 or other conceivable materials," and that they are used for connecting vertically the sections of the pillars and to connect a first module and a second module [of two modules] placed one on top of another. *What the pins*

Repeat

9. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the combination of the sections of the pillars with the pins provides accurate vertical and horizontal structure of the building by means of a simple plug-in connection.

Repeat

10. (Once Amended) Prefabricated buildings or houses according to a modular steel frame construction method as claimed in claim 20, wherein the ceiling frame comprises an L-shaped sheet-steel section, St 37 or 52 or of other conceivable materials or sections." 112A

Repeat

11. (Once Amended) Prefabricated buildings or houses according to a modular steel frame construction method as claimed in claim 20, wherein the ceiling frame consists of an edged or rolled L-section 250/75/5 or other conceivable sections." 112A

Repeat

12. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the frames are beveled and welded at their angles or corners.

Repeat
13. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, further including C 60, C 80 or other sections welded into the ceiling frame perpendicular to [its] a longitudinal direction of the ceiling frame and in an axial distance depending upon static specifications.

Repeat
14. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the combination of the ceiling frame with the floor frame generates a [twinned] beam allowing a cantilever span of up to 14 m.

Repeat
16. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, further including at least a pair of beams interconnected either by screw-bolts or through welding, the method of interconnection depending upon [the] a cantilever span.

18. (Once Amended) Prefabricated buildings or houses made by a modular steel frame construction method, the prefabricated buildings or houses comprising:

a) a ceiling frame,

b) a floor frame ;

c) Z-shaped sections welded inside the floor frame; wherein the Z-shaped sections form flanges; and

d) at least one pair pillar, wherein the pillar comprises a first section and a second section, wherein the first

add to reject being of service the floor & ceiling to upper levels.
section is connected to the floor frame and the second section is connected to the ceiling frame;

wherein the sections are interconnected by the use of a transverse bearer and pins

[Prefabricated buildings or houses according to a modular steel frame construction method as claimed in] claim 20,] wherein the modules are connected, mounted and [rabbeted] welded [accordingly] at the building site.

Repeat.
19. (Once Amended) Prefabricated buildings or houses according to [a modular steel frame construction method as claimed in] claim 20, wherein the buildings or houses [can be built] include several stories.

Repeat & update: eg. including steel on roof eg.
20. (Once Amended) Prefabricated buildings or houses made by a modular steel frame construction method, the prefabricated buildings or houses [construction method comprising the combination of] comprising:

- a) a ceiling frame,
- b) a floor frame ;
- c) Z-shaped sections welded inside the floor frame; wherein the Z-shaped sections form flanges; and
- d) at least one pair ^{of} pillars, wherein the pillar comprises a first section and a second section, wherein the first section is connected to the floor frame and the second section is connected to the ceiling frame;

wherein the sections are interconnected by the use of a transverse bearer and pins; wherein the ceiling frame, the floor frame, and the at least one pair of pillar form a module; and wherein the module includes exterior walls, interior walls, fittings, interior finishing, roof covering, and windows.

define module
any series of standardized
units for use together
as a unit of architecture
or furniture.

Color "module" red

- describe the "series" of
standardized units.
(i.e. as in #1)

✓
Col 7 line 5:
to
Col 8 line 17
the only thing doesn't
say is "fitting"